

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ150
THERMAL: TA=150(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

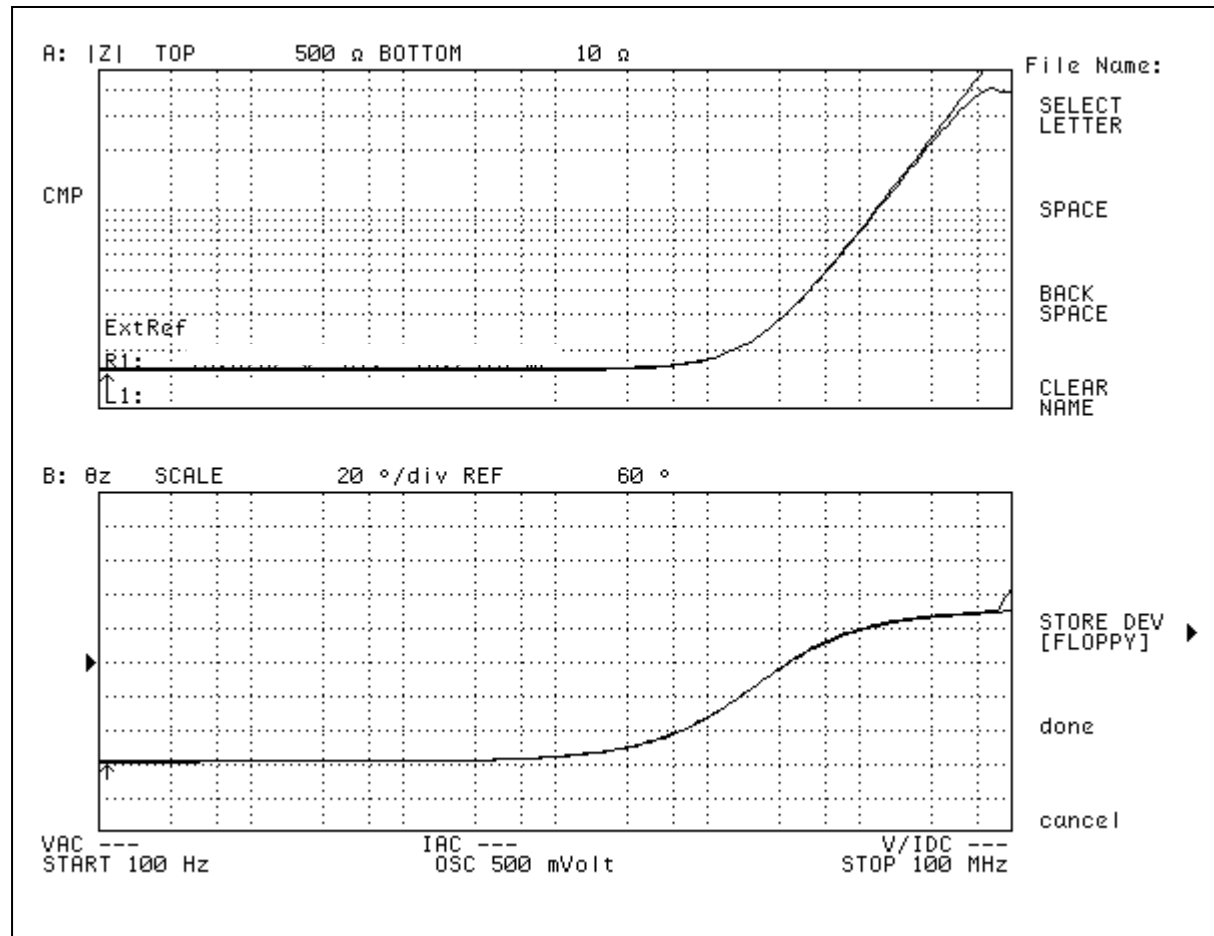
Optimization of Simulation

Range of adjustment Frequency: 100 to 100M(Hz)

Frequency vs. $|Z|$ and Frequency vs. θ_z Characteristic

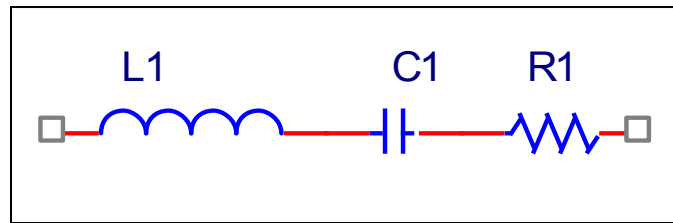
Attention

Please use SPICE MODEL within the range from 100 to 100M(Hz)



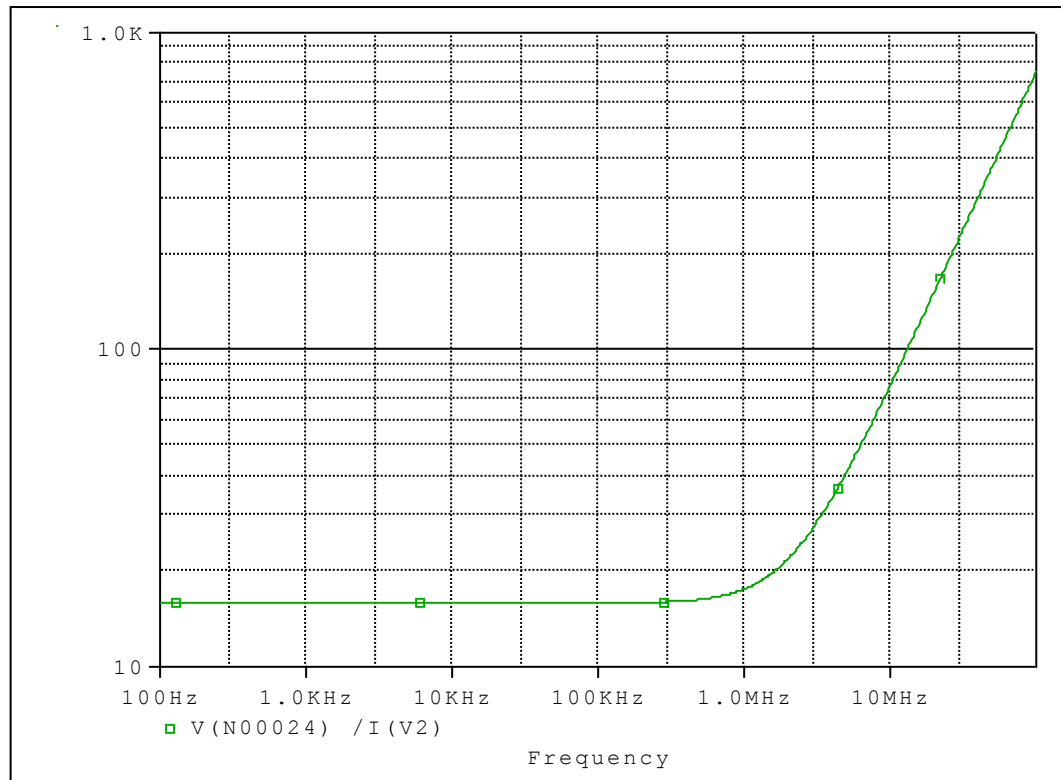
Measurement		
R1		
L1		
C1		

Equivalent circuit

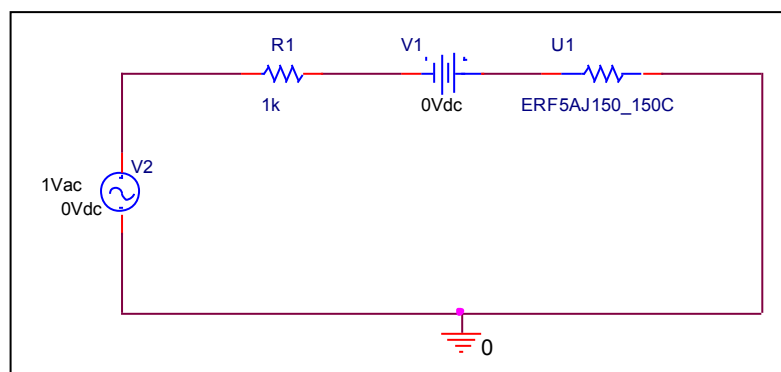


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	15.611	15.879	1.716
1K	15.614	15.878	1.688
10K	15.620	15.878	1.654
100K	15.635	15.896	1.666
1M	17.711	17.590	0.683
10M	77.457	77.331	0.162